

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002478**Date Inspected:** 27-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun and see below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

**New Tower Shop**

The QA Inspector observed ZPMC personnel drilling bolt holes in assembled and welded struts.

The QA Inspector observed ZPMC personnel heat straightening various Tower Skin plates and cutting bevels on various Tower Skin plates using the horizontal mill.

The QA Inspector observed ZPMC personnel completed fitting and tack welding Tower Skin plates 150(S) and 191(S) for weld joint SSD1-SA16-T/G-88B. Submerged Arc Welding (SAW) was in process with ZPMC welding personnel Yun Chuanjin, ID #050306 using Welding Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S.

The QA Inspector observed ZPMC personnel welding Internal Tower Splice Connection plate weld number MUC-A116-1B/1A using WPS-B-T-4113-2 for the tack welding and WPS-B-P-2211-B-U2-FCM for the production Flux Cored Arc Welding (FCAW). The QA Inspector observed ZPMC personnel have started a second Internal Tower Splice Connection plate weld number MUC-A119-1. ZPMC welding personnel are Chang Chuancang, ID #053870 and Bai Wenming, ID #040434 are performing FCAW using WPS-B-P-2211-B-U2-FCM.

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

These are replacement parts for the 114-meter Mock-Up.

### Bay 2

The QA Inspector observed ZPMC personnel drilling bolt holes in diagonal tube steel braces for Floor Beams and cutting plate material for the Tower.

The QA Inspector observed ZPMC personnel cutting macroetch samples from the 77-Meter Mock-Up at Skin.

### Bay 3

The QA Inspector observed ZPMC welding personnel Zhang Feng, ID #049769, Li Wenguo, ID #066261 and Guo Dengyun, ID #037919 fit and tack weld WT stiffeners on Side Plates: SP358-001, SP359-001, SP331-001, and SP304-001.

The QA Inspector observed ZPMC Welder Dai Lu, ID #048659 and Li Zhaoqian, ID #048810 welding Complete Joint Penetration (CJP) welds on W21 x 57's.

This QA Inspector witnessed ZPMC QC personnel perform and accept the Magnetic Particle Testing (MT) on the weld terminations and middle section of the welds on: SP043-001 and SP078-001. The work appeared to comply with the contract requirements.

### Bay 4

The QA Inspector observed that ZPMC personnel had completed welding an Internal Tower Diaphragm plate weld number ESD1-SA287-3A and 4A.

The QA Inspector observed ZPMC welding personnel Lv Peng, ID #048617 tack weld run off tabs on Internal Tower Diaphragm plate splice weld number ESD1-SA234-A/B-10A.

The QA Inspector observed ZPMC personnel heat straightening various Internal Tower Diaphragm Plates.

### Summary of Conversations:

: The QA Inspector had conversations with ABF QC personnel in regards to the improvements that ZPMC is showing in regards to weld joint preheat and interpass temperatures and them being able to maintain it by aggressively monitoring the material temperature.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Stovall,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Hager,Craig	QA Reviewer

---